

### **R E M A R K S**

Reconsideration of this application, as amended, is respectfully requested.

### **THE CLAIMS**

Independent claims 1 and 3 have been amended to incorporate subject matter along the lines of (now canceled) claim 6 so as to recite that the image display device is connected with a counterweight by a string-like flexible member such that the counterweight is balanced with the image display device, wherein the string-like flexible member supports the image display device by suspending the image display device and the counterweight via a pulley which is set on a two-dimensional-direction driving mechanism adapted to be movable on a horizontal flat surface that is located above the head of the user and that is supported by a floor. See, for example, Figs. 12 and 13 and the corresponding disclosure in the specification.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

### **THE PRIOR ART REJECTION**

Claims 1-3 and 5-6 were rejected under 35 USC 103 as being obvious in view of the combination of previously cited

USP 5,253,832 ("Bolas et al") and USP 5,822,127 ("Chen et al"). In addition, claims 7-14 were rejected under 35 USC 103 as being obvious in view of the combination of Bolas et al and Chen et al with one or more of previously cited USP 4,257,062 ("Meredith"), USP 6,014,261 ("Takahashi"), USP 6,879,443 ("Spitzer et al"), USP 4,268,127 ("Oshima et al") and USP 5,347,644 ("Sedlmayr"). These rejections, however, are respectfully traversed with respect to the claims as amended hereinabove.

According to the present invention as recited in amended independent claim 1, an image display device is provided which is supported by a portion other than a user, which is adapted to be in contact with a face of the user by using elastic members, and which is movable in accordance with a movement of the face of the user, wherein when the image display device is worn by the user, a portion of optical elements of the image display device is located at a rear side of the user's head by making light beams folded, thereby positioning a gravity center of the image display device to be located in a rearward and downward direction relative to eyeballs of the user when the user is in an upright position.

Similarly, according to the present invention as recited in amended independent claim 3, an image display device is provided which is supported by a portion other than a user so that the image display device is movable in three-dimensional directions

in space, and so that the image display device is rotationally movable in the three-dimensional directions, wherein the image display device is adapted to be in contact with a face of the user by using elastic members, and is movable and rotationally movable in accordance with movement of the face of the user, the image display device comprising a plurality of rotational movement shafts wherein each of the rotational movement shafts substantially coincides with a gravity center of the image display device, and wherein when the image display device is worn by the user, a portion of optical elements of the image display device is located at a rear side of the user's head by making light beams folded, thereby positioning the gravity center of the image display device to be located in a rearward and downward direction relative to eyeballs of the user when the user is in an upright position.

\_\_\_\_And significantly, according to the present invention as recited in both amended independent claims 1 and 3, the image display device is connected with a counterweight by a string-like flexible member such that the counterweight is balanced with the image display device, wherein the string-like flexible member supports the image display device by suspending the image display device and the counterweight via a pulley which is set on a two-dimensional-direction driving mechanism adapted to be movable on a horizontal flat surface that is located above the head of the

user and that is supported by a floor. See Figs. 12 and 13 of the present application.

With this structure of the present invention as recited in amended independent claims 1 and 3, the display device and the counterweight are directly connected to each other with the string-like flexible member. If the user wearing the display device tries to move his face vertically, the display device and the counterweight that are balanced with each other move in an elevator-like manner. That is, a weight of the display device being worn by the user is canceled by the counterweight.

Moreover, if the user tries to move his face horizontally, the display device moves in accordance with the movement of the face of the user due to movement of the two-dimensional-direction driving mechanism on the horizontal flat surface that is located above the head of the user. See Figs. 12 and 13 of the present application. As a result, with the structure of the claimed present invention, the user feels no resistance force due to the burden of inertia at any point on his face during vertical or horizontal movement.

It is respectfully submitted that even if all of the cited references were considered in combination, they still would not achieve or render obvious the above described claimed structural features and advantageous effects of the present invention as recited in amended independent claims 1 and 3.

On pages 2 and 3 of the Office Action, the Examiner agrees that Bolas et al "does not explicitly teach positioning a gravity center of said image display device to be located in a rearward and downward direction relative to eyeballs of said user when said user is in an upright position." However, according to the Examiner, based on the disclosure regarding the intersection point of axes of bearings 18 and 20 in Bolas et al, it would have been obvious to one having ordinary skill in the art at the time the invention was made to recognize that with the counterbalanced system of Bolas et al, a gravity center of the image display device would have been positioned to be located in a rearward and downward direction relative to eyeballs of the user when the user is in an upright position. Applicant respectfully disagrees.

It is again respectfully pointed out that Bolas et al merely discloses a method and mechanism regarding handling of a display device, but does not disclose any structure of the display device itself. That is, in Bolas et al, the display device is merely disclosed as a simple box shape. As is clearly evident from Figs. 1-3 thereof, during use by the user, the main (entire) body of the display device of Bolas et al is located in front of the head (or eyes) of the user and is moved by hand using the handles 14. Clearly, since the main body of the display device of Bolas et al is located is front of the head of the user during

use, the gravity center of the display device of Bolas et al will also be located in front of the head (or eyes) of the user.

By contrast, according to the claimed present invention, the gravity center of the display device is located rearward of the eyeballs.

Accordingly, it is again respectfully submitted that Bolas et al does not at all achieve or render obvious the feature of the present invention as recited in amended independent claims 1 and 3 whereby the gravity center of the image display device is positioned to be located in a rearward and downward direction relative to eyeballs of the user when the user is using the display device in an upright position.

In addition, it is noted that on pages 5 and 6 of the Office Action, with respect to the subject matter of (now canceled) claim 6, the Examiner has also cited Bolas et al.

However, Bolas et al merely discloses that the cable 64 and spring 56 thereof support only the spring counterbalanced cantilever arm 34 and that the arm 34 supports a weight of the counterbalanced boom arm 24 that has the viewing device 22 and the counterweight 28 at ends thereof. According to Bolas et al, in order to balance viewing device 22 and the counterweight 28, viewing device 22 has the same weight as the counterweight 28, and it is respectfully submitted that rotating the boom arm 24 with the viewing device 22 and the counterweight 28 at ends

thereof involves a large burden of inertia. See Fig. 1 of Bolas et al. Therefore, it is respectfully submitted that with the system of Bolas et al, contrary to the claimed present invention, when the user tries to move his face vertically, the user feels a relatively large resistance force due to the burden of inertia, and a condition where the display device is easily movable in accordance with the movement of the face of the user is not achieved.

Still further, according to Bolas et al, the viewing device 22 may also be supported by the cable 64 and the spring 56 without the counterweight 28, where a spring force is described by the equation  $F = KX$ , in which 'K' is a spring constant and 'X' is a moving length. See Fig. 4 of Bolas et al. It is respectfully submitted, however, that with this system of Bolas et al also, when the user tries to move his face vertically, the spring force in proportion to the moving length is applied to the user, and it is respectfully submitted that as a result, contrary to the claimed present invention, a condition where the display device is easily movable in accordance with the movement of the face of the user is not achieved.

Yet still further, and significantly, it is respectfully submitted that contrary to the present invention as recited in amended claims 1 and 3, the viewing device 22 of Bolas et al is not connected with the counterweight 28 by the cable 64 (that is,

the viewing device 22 and the counterweight 28 are merely connected by the boom arm 24). In addition, it is respectfully submitted that Bolas et al does not at all disclose or even remotely suggest the features of the present invention as recited in amended claims 1 and 3 whereby the string-like flexible member supports the image display device by suspending the image display device and the counterweight via a pulley which is set on a two-dimensional-direction driving mechanism adapted to be movable on a horizontal flat surface that is located above the head of the user and that is supported by a floor.

Chen et al, moreover, has been merely cited to teach that a portion of optical elements of the image display device is located at a rear side of the the user's head by making light beams folded. And it is noted that the remaining cited references have only been cited with respect to the subject matter of the dependent claims.

Accordingly, it is again respectfully submitted that even if all of the cited references were combinable in the manner suggested by the Examiner, any such combination still would not achieve or render obvious the claimed structural features and advantageous effects of the present invention as recited in amended independent claims 1 and 3 whereby a gravity center of the image display device is positioned to be located in a

rearward and downward direction relative to eyeballs of the user when the user is in an upright position, whereby the image display device is connected with a counterweight by a string-like flexible member such that the counterweight is balanced with the image display device, and whereby the string-like flexible member supports the image display device by suspending the image display device and the counterweight via a pulley which is set on a two-dimensional-direction driving mechanism adapted to be movable on a horizontal flat surface that is located above the head of the user and that is supported by a floor.

In view of the foregoing, it is respectfully submitted that amended independent claims 1 and 3, and claims 2, 5 and 7-14 respectively depending therefrom, all clearly patentably distinguish over the cited references, taken singly or in any combination consistent with the respective fair teachings thereof, under 35 USC 103, along with withdrawn dependent claims 15-29.

\* \* \* \* \*

Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

/Douglas Holtz/

Douglas Holtz  
Reg. No. 33,902

Frishauf, Holtz, Goodman & Chick, P.C.  
220 Fifth Avenue - 16<sup>th</sup> Floor  
New York, New York 10001-7708  
Tel. No. (212) 319-4900

DH:jd